9. Cyprus. 1979 SG 518-19, 1982 SG 585. Venus.

BACK BY POPULAR DEMAND??

Chest X-Rays

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Chest x rays have been the subject of philatelic material since 1940. Even though countless diseases can be detected from a chest x ray, most of the interest that generated this philatelic subject was the result of the significant value of the chest x ray against the rampant scourge of tuberculosis. Relatively quiet for many years, TB seems to be returning as a modern day dilemma. With its return the chest x ray will play an ever increasing roll in medicine.

Topical collectors began to find chest x rays in their collections shortly after x rays first came into production. Anyone collecting medicine, infectious diseases, radiology or TB would include them as part of their collection. Currently, collectors of AIDS stamps might include some chest x-ray stamps, as TB is an associated problem.

Chest x rays constitute a large portion of any radiology collection. They fall into several sub categories for the meticulous collector. The largest portion of material is viewed as a photofluoroscopic procedure used in mass TB screenings. Some material is presented as the true chest x ray and some as chest fluoroscopy.

From the very beginning of x-ray history TB was recognized diagnostically on x-ray plates of the chest. TB was a worldwide killer. If early diagnosis could be made, the advantage was obvious. X ray was a tremendous help. However, in the early days it had serious limits. It was time consuming, costly and not practical for screening large numbers of people. Its time had not yet come.

One of the first mass screenings was made in the US in 1931, using paper instead of film or glass plates. Even though the cost was cut drastically with this method, it never gained popularity, perhaps because it was soon followed by the more practical photofluoroscopy.

As early as 1896, one year after the discovery of x ray, Julius Bleyer, laryngologist for the Met, developed the first photofluorograph. This process photographs an x-ray image from a fluoroscopic screen.

It was not until the 1930's that the industry made Bleyer's invention practical enough to use for mass screenings. It was now possible to take films rapidly without overheating the x-ray tube. Miniature film on rolls cut the cost dramatically. Large masses of people could now be screened. Those who had questionable "spots" could be referred for conventional x ray.

The US initiated mass screenings in 1938. The x-ray bus or van, became a very common sight across the world. These traveling vans, along with photofluorographic equipment and miniature film became the fastest way of reaching vast numbers of the population. Screenings could be done in schools, factories, hospitals, military bases, and other institutions.

World War I gave thrust to the development and popularization of x-ray equipment. A few dedicated pioneers scattered the European countryside with their improvised x-ray equipment in various makeshift vehicles, usually painted with a Red Cross. Fractures were quickly diagnosed and set. World War II thrust the industry forward again. Industrialists assisted the Armed Forces by developing small photofluoroscopic units that could produce 100-120 chest x rays an hour. In 1944 over 400,000 chest cases were reported at the Great Lakes

Training Station. Of the screening, significant lesions warranting discharge were found at a rate of 0.25%. The wartime progress of this industry encouraged the US Government to aim at screening the entire population at regular intervals.

X ray vans and busses began to emerge everywhere as county after county undertook mass screenings. Tuberculosis associations generated tremendous public response, as parents sought to protect their children from serious illness. Vans and busses were pictured everywhere. The could be seen in magazines, newspapers and on billboards and signs. Radio broadcasts emphasized the need for
x-ray screening. The anti-tubercular campaign was thoroughly promoted on seals, stamps and various cinderella material. Tuberculosis associations used their stationery as advertising and provided contributors with windshield labels, window signs and collar buttons. Slogan cancels asked, "Have You Had Your Chest
X-Ray?"

This method of detection has lost popularity today because of the effectiveness and ease of the skin test and the radiation risk of x ray. Low TB incidence experienced for the last twenty years, prior to the advent of Aids, is partly due to the screenings of the past. In recent years, the skin test predominates. Only if the results of the test are positive is an x ray taken for further diagnosis and plan of treatment. Inoculation, though not always effective, has been possible for years and has been utilized in other parts of the world. This has never gained popularity with the medical community is the US. If the entire population was inoculated each of these persons could give a positive reading to the skin test, making diagnosis difficult.

Many stamps depict the traditional chest x ray. Today, standard chest x rays are the most conventional way of examining the patient for heart and lung disease. These films are a full size 14x17 inch x ray produced on double emulsion x-ray film. With the need for mass screenings behind us, it is the method of choice because, it assures the highest degree of imaging detail for the least amount of radiation.

The resurgence of TB today poses an additional risk to the world's population. AIDS victims are increasingly infected with this secondary disease, because it finds an inviting host in the weakened patient. Additionally, confined populations such as prisoners and clients of homeless shelters are finding the disease spreading in their midst. Even though TB patients can be effectively treated with medication it is difficult to convince the patient, frequently poor without insurance and short on funds to take the medication as prescribed. The patient begins to feel better shortly after starting drug therapy. With this feeling of wellness, the patient is tempted to stop the course of treatment. The medication must be taken completely to be effective. Thus, the cycle begins again.

Chest fluoroscopy is another philatelic subject. The doctor views the patient's chest directly from the fluoroscopy equipment. This method of examination was popular when TB patients were treated with artificial pneumothorax. The doctor used the fluoroscope, while inducing a pneumothorax, in order to give the affected lung a rest. Today fluoroscopy of the chest is used when the radiologist wishes to study motion of the heart or lungs.

SOME ILLUSTRATIVE STAMPS ETC.

Chest Photofluorography:

1.) This 1960 Viet Nam stamp Scott number B3 shows a clearly defined photofluoroscopy

Figure 1.

unit. The x-ray tube is visible behind the patient and the photographic camera can be seen in front. The patient is assuming the correct position in a posterior-anterior projection. By the patient placing his hands on his hips and rolling the shoulders forward, the apices of the chest are more clearly visible. This is most important in screening for TB. Correct positioning is not always philatelically seen and shows good technical research.

2.) The 1962 Korean stamp Scott number 413 shows a nurse walking away from an x- ray van. Nurses, distinguished by their caps, are frequently pictured on radiology stamps. The implication is that the nurse took the x ray. Only registered radiologic technologists should be employed to produce radiographs. Their education includes extensive education in such subjects as radiation biology.

Figure 2

Chest X Ray:

3.) The 1973 Ghana stamp Scott number 480 shows a radiologist using a modern illuminated viewbox and dictaphone to assist him in the interpretation of this chest x ray.

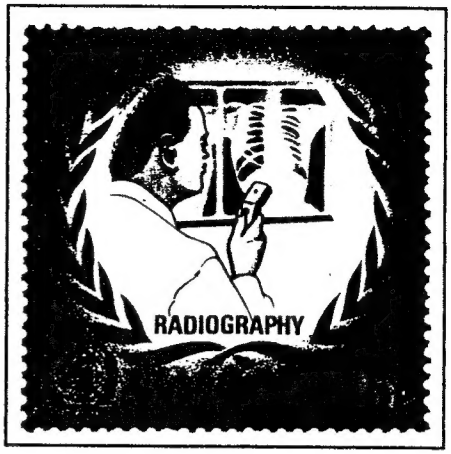


Figure 3

4.) German seal [Green number 42.1] visualizes a chest x ray with the "dreaded spot." It is sponsored by the German American Clubs in Germany. The are multiple versions of this seal.

Figure 4

Chest Fluoroscopy:

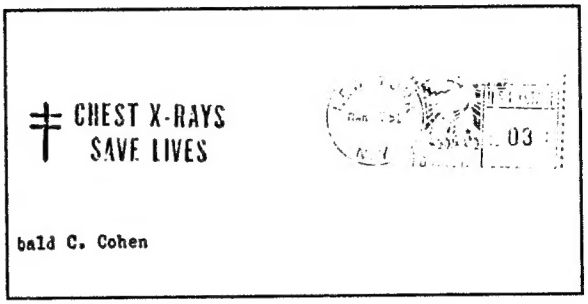
5.) The 1951 Hungarian stamp Scott number 969 stamp showing a radiologist viewing a patient's chest under fluoroscopy. When viewing this stamp note the glasses worn by the physician. They appear to be adaptive lenses worn to accommodate ones eyes to the dark, for fifteen to thirty minutes before entering the x-ray room. These glasses

Figure 5

Figure 6

would be removed by the radiologist when viewing the patient in the x ray room. This philatelic error shows that those designing stamps would benefit by using credible technical references when working with subjects unfamiliar to them. This practice of accommodating to the dark has long been obsolete, with the introductions of the television monitor into the fluoroscopic imaging chain.

6.) The 1949 French TB seal Green number 32 was also accompanied by a series of windshield labels of representing varying denominations of financial support. Notice the radiation protection accessories. The radiologist is wearing a lead apron. Again we see goggles. It is hard to believe they are lead as this would have been highly unlikely at that point in time. He is using lead gloves, while manipulating a coning device with his left hand. Coning devices limit the emission of radiation to only the necessary field of view. Just inside the radiologist's left hand is another radiation shield. This accessory, also limits the scatter of radiation. This illustration of protective apparel is unusual at this period in time.



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CHEST X RAYS ON PHILATELY AND SEALS

Photofluoroscopy/X-ray Vans/
Mass Screenings:

Stamps(Scott#s) **Seals(Green#s)** **Cancels**

Korea 332 '61 Formosa 26-7 '55 Great Britain '59
Korea 413 '63 France 47 '64 Exeter
Mali 77 '65 Hong Kong 6 '72 "DON'T FORGET YOUR
Nigeria 411 '82 Hungary 201 '67 CHEST X-RAY'
Ryukyus 163 '67 Hungary 202 '68 Ireland '59
Samoa 277 '67 Japan 116 '60 "AVAIL OF ANNUAL
Toga 692 '69 NewSouth 57 '52 MASS X-RAY"
C113 Wales 60 '53 Papua '82
Turkey 1225 '57 64 '55 "KEEP T.B.AT BAY
VietNam B3 '60 66 '56 HAVE CHEST X-RAY"
C113 68 '57 USA
70 '58 Allentown '54
Panama 28 '60 "CHECK YOUR CHEST
Philippine 28 '73 LET X-RAY SAY OK"
30 '78 SanMateo '53
Portugal 51 '65 "JOIN THE REST
Turkey 15 '57 X-RAY YOUR CHEST"
25 '58 Wilmington '53
USA 476 '46 "FREE CHEST X-RAY
Detroit 477 '47 NOW DELAWARE
1196 '48 STATEWIDE CHEST
USA 2021 '61 X-RAY SURVEY" Prov.RI 2022 '62 N. Y. '51
2023 '63 "CHEST X-RAYS
SAVE LIVES"

Chest X-Ray:

Stamp(Scott#s) **Seals(Green#s)**

Ghana 480 '73 German 42.1 '50
France 822 '57 44.1 '51
Gilbert 164 '70 51.1 '51
& Ellis 52.1 '52
Nigeria 494 '86
Hungary B196 '47
Belgium B597 '56
Pakistan A265 '82
Bahamas 506
Bopswana. '81
Central 294 '77
African Empire

Chest Fluoroscopy :
Stamps (Scott #s)
Hungary 969 '51

Chest Fluoroscopy :
Seals (Green#s)
Czech. 26 '40
France 32 '49
(Windshield labels 100, 500, 1000)
France '57
(Windshield labels)
Germany 222 '52
Netherlands 172.b '54
Russia 402 1.

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